

ABSTRACT

[0057] A system and method is proposed to significantly reduce the peak to average power ratio (PAPR) for an OFDM system by stabilizing the signal envelope. By using partial response (PR) signaling to spread each sub-symbol over multiple subcarriers, the signal is first compress in time. The signal is then rearranged such that it is possible to stabilize the envelope at some constant value  $\alpha$ , thus improving the PAPR without using excessive time-bandwidth resources.